

D 1 materials being coke breeze, petroleum coke fines, CDQ (cold dust quench) fines, and most preferably pulverized coal. Any other reductant commonly used in the direct reduction of iron is also acceptable, including charcoal or graphite. The amount of reductant required depends upon the relative amount of iron components within the mixture as well as the amount of cellulose binder utilized. It has been found that cellulose fiber material can effectively act as a reductant and in some circumstances can replace some or all of the more costly beneficiated reductants. Thus, the potential exists for the reductant component in the agglomerate to be 100% replaced by cellulose material, especially if there is an economic advantage to doing so. Although various sizes of reductant material result in an acceptably strong agglomerate, reductant is preferably pulverized coal, with 80% of the coal able to pass 200 mesh screening. - -

In the Claims:

Please amend Claims 1-3 as follows:

D 2 1. (Amended) A process for making metallized iron by reduction of iron oxide from green briquettes, said process comprising:

SB 7 combining iron bearing materials forming a mixture that is substantially iron oxide, a reductant, cellulose fiber and 0% to 5% water by weight of the mixture;
compacting the mixture into green briquettes; and
heating the green briquettes at a temperature of from about 1000°C to about 1550°C for a period of 6 to 20 minutes, therein metallizing iron forming metallized briquettes.

2. (Amended) The process of claim 1, wherein said green briquettes are heated for a period

of 7 to 9 minutes.

D2 3. (Amended) The process of claim 1, wherein said green briquettes are heated at a temperature in the range of from 1000°C to 1300°C.

Please amend Claims 6-9 as follows:

D3 6. (Amended) A process according to claim 1 wherein said reductant is selected from the group consisting of CDQ dust, pulverized coal, coke breeze, petroleum coke fines, charcoal, graphite, and any other reductant commonly used in the direct reduction of iron.

7. (Amended) A process according to claim 1 wherein the green briquettes are initially heated in an oxidizing atmosphere, followed by further heating in an inert or reducing atmosphere.

8. (Amended) A process according to claim 1, further comprising adding steel alloy materials to the green briquettes; and introducing said green briquettes into a steelmaking furnace.

9. (Amended) A process according to claim 8, wherein each green briquette has enough reductant for proper reduction of the iron oxide in the briquette.

Please amend Claims 11 - 14 as follows:

D4 11. (Amended) A process according to claim 1, wherein said green briquette is fed directly to the heating furnace without any drying step.

12. (Amended) A process according to claim 1, wherein said cellulose fiber comprises 0.5 to 2.0% by weight of each green briquette.

13. (Amended) A process according to claim 1, wherein said metallized briquette forms at least 40% metallized iron.

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14. (Amended) A process for making strong, green briquettes by combining iron bearing materials, reductant, cellulose fiber and water, wherein the green briquettes are formed by high pressure compaction, where the compaction is of sufficient force to squeeze the water to 0% - 5% by weight of the green briquettes.

Please amend Claims 17 - 19 as follows:

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17. (Amended) A process according to claim 14, further comprising introducing said green briquettes into a steelmaking furnace as iron-bearing feed material.

18. (Amended) A process according to claim 14, wherein from 0.5 to 15 percent of the iron bearing material consists of particles that are up to 6 mm in size.

19. (Amended) A process according to claim 14, wherein said cellulose fiber comprises 0.5 to 2.0% by weight of each green briquette.

Claim 21 is canceled.